

PE NUMBER: 0303110F

UNCLASSIFIED

PE TITLE: Def Satellite Comm Sys (Space)

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 1999		
BUDGET ACTIVITY 7 - Operational System Development				PE NUMBER AND TITLE 0303110F Def Satellite Comm Sys (Space)				PROJECT 2638		
COST (\$ In Thousands)	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
2638 Defense Satellite Communications Sys	8,486	14,003	8,985	8,593	2,903	2,172	1,271	1,367	12,000	645,948
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

(U) A. Mission Description

(U) Defense Satellite Communications System (DSCS) is the backbone of the Government's satellite communications system, providing both secure voice and high data rate transmissions in the Super High Frequency band. DSCS provides unique and vital national security communications for global command and control, crisis management, intelligence and early warning data relay, treaty monitoring and surveillance information, and diplomatic traffic. The communications relayed through DSCS support the National Command Authorities, Defense Information System Network, Diplomatic Telecommunications Service, White House Communications Agency, the Air Force Satellite Control Network, and ground mobile forces of all services.

(U) The DSCS Service Life Enhancement Program (SLEP) includes additional modifications that increase the last four satellites' capacity to tactical users by more than 200%, and implements the DoD Space Architect's recommendation.

(U) The last two DSCS III satellites will launch on the Evolved Expendable Launch Vehicle (EELV) and will require modifications to the DSCS launch vehicle interfaces and additional launch loads analyses.

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<p>(U) <u>FY 1998 (\$ in Thousands):</u></p> <ul style="list-style-type: none"> - (U) \$ 1,098 System Program Office Operations <ul style="list-style-type: none"> - Contractor Support - Mission Support - (U) \$ 1,400 Basic DSCS Program <ul style="list-style-type: none"> - Paid performance incentives for development satellites still on orbit and operational - Conducted programmatic tradeoffs and analyses - (U) \$ 150 Began EELV integration development - (U) \$ 5,838 Continued SLEP Modification <ul style="list-style-type: none"> - Conducted first article final assembly - Conducted SLEP rework verification article - Continued Low Noise Amplifier upgrade development to enhance performance and increase capacity for tactical users - Continue to develop satellite bandwidth modifications to increase capacity level of less capable DSCS satellites to that of satellites B8 - B11 - (U) \$ 8,486 Total <p>(U) <u>FY 1999 (\$ in Thousands):</u></p> <ul style="list-style-type: none"> - (U) \$ 2,319 System Program Office Operations <ul style="list-style-type: none"> - Contractor Support - Mission Support - (U) \$ 1,965 Basic DSCS Program <ul style="list-style-type: none"> - Pay performance incentives for development satellites still on orbit and operational - Conduct programmatic tradeoffs and analyses - (U) \$ 9,032 Continue integration development to transition last two satellites to EELVs - (U) \$ 100 Finish SLEP Modification - (U) \$ 587 Identified as a source for SBIR - (U) \$ 14,003 Total 		
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(U) FY 2000 (\$ in Thousands):

- (U) \$ 2,116 System program Office Operations
 - Contractor Support
 - Mission Support
- (U) \$ 540 Basic DSCS Program
 - Pay performance incentives for development satellites still on orbit and operational
 - Conduct programmatic tradeoffs and analyses
- (U) \$ 6,329 Continue integration development to transition last two satellites to EELVs
- (U) \$ 8,985 Total

(U) FY 2001 (\$ in Thousands):

- (U) \$ 2,100 System Program Office Operations
 - Contractor Support
 - Mission Support
- (U) \$ 2,156 Basic DSCS Program
 - Pay performance incentives for development satellites still on orbit and operational
 - Conduct programmatic tradeoffs and analyses
- (U) \$ 1,000 Continue integration development to transition last two satellites to EELVs
- (U) \$ 3,337 Generic Telemetry Simulator (GT Sim) hardware and software modifications for EELV launches
- (U) \$ 8,593 Total

(U) **B. Budget Activity Justification:**

(U) This program is in Budget Activity 7, Operational System Development, since DSCS is an operational system consisting of a fully operational satellite constellation and replenishment satellites awaiting launch, and associated support systems.

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BUDGET ACTIVITY 7 - Operational System Development	PE NUMBER AND TITLE 0303110F Def Satellite Comm Sys (Space)				PROJECT 2638																																																																																			
<p>(U) C. <u>Program Change Summary (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="text-align: right; width: 10%;"><u>FY 1998</u></th> <th style="text-align: right; width: 10%;"><u>FY 1999</u></th> <th style="text-align: right; width: 10%;"><u>FY 2000</u></th> <th style="text-align: right; width: 10%;"><u>FY 2001</u></th> <th style="text-align: right; width: 10%;"><u>Total Program</u></th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget (FY 1999 PB)</td> <td style="text-align: right;">9,961</td> <td style="text-align: right;">15,641</td> <td style="text-align: right;">9,149</td> <td style="text-align: right;">8,756</td> <td style="text-align: right;">633,415</td> </tr> <tr> <td>(U) Appropriated Value</td> <td style="text-align: right;">10,547</td> <td style="text-align: right;">14,141</td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Appropriated Value</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> a. Cong Gen Reductions</td> <td style="text-align: right;">-345</td> <td style="text-align: right;">-138</td> <td></td> <td></td> <td></td> </tr> <tr> <td> b. SBIR</td> <td style="text-align: right;">-243</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> c. Omnibus or Other Above Threshold Reprogram</td> <td style="text-align: right;">-68</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> d. Below Threshold Reprogramming</td> <td style="text-align: right;">-1,405</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Budget Years Since FY 1999 PB</td> <td></td> <td></td> <td style="text-align: right;">-164</td> <td style="text-align: right;">-163</td> <td></td> </tr> <tr> <td>(U) Current Budget Submit/FY 2000 PB</td> <td style="text-align: right;">8,486</td> <td style="text-align: right;">14,003</td> <td style="text-align: right;">8,985</td> <td style="text-align: right;">8,593</td> <td style="text-align: right;">645,361</td> </tr> </tbody> </table> <p>(U) Significant Program Changes: FY98: \$1,405 used to fund higher Air Force priorities. FY99: \$587 identified as a source for SBIR. FY00: \$164 used to fund higher Air Force priorities. FY01: \$163 used to fund higher Air Force priorities.</p> <p>(U) D. <u>Other Program Funding Summary (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="text-align: right; width: 7.5%;"><u>FY 1998</u></th> <th style="text-align: right; width: 7.5%;"><u>FY 1999</u></th> <th style="text-align: right; width: 7.5%;"><u>FY 2000</u></th> <th style="text-align: right; width: 7.5%;"><u>FY 2001</u></th> <th style="text-align: right; width: 7.5%;"><u>FY 2002</u></th> <th style="text-align: right; width: 7.5%;"><u>FY 2003</u></th> <th style="text-align: right; width: 7.5%;"><u>FY 2004</u></th> <th style="text-align: right; width: 7.5%;"><u>FY 2005</u></th> <th style="text-align: right; width: 7.5%;"><u>To Compl</u></th> <th style="text-align: right; width: 7.5%;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>(U) Missile Procurement, Budget Activity 5, Space and Other Support, Line Item P-27</td> <td style="text-align: right;">81,405</td> <td style="text-align: right;">28,641</td> <td style="text-align: right;">30,765</td> <td style="text-align: right;">22,976</td> <td style="text-align: right;">27,110</td> <td style="text-align: right;">23,062</td> <td style="text-align: right;">11,982</td> <td style="text-align: right;">12,272</td> <td style="text-align: right;">112,000</td> <td style="text-align: right;">1,960,813</td> </tr> </tbody> </table> <p>(U) E. <u>Acquisition Strategy:</u> All satellites have been acquired and four satellites remain to launch. Enhancements to satellites not launched will be accomplished through sole source contract awards.</p>								<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Total Program</u>	(U) Previous President's Budget (FY 1999 PB)	9,961	15,641	9,149	8,756	633,415	(U) Appropriated Value	10,547	14,141				(U) Adjustments to Appropriated Value						a. Cong Gen Reductions	-345	-138				b. SBIR	-243					c. Omnibus or Other Above Threshold Reprogram	-68					d. Below Threshold Reprogramming	-1,405					(U) Adjustments to Budget Years Since FY 1999 PB			-164	-163		(U) Current Budget Submit/FY 2000 PB	8,486	14,003	8,985	8,593	645,361		<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>To Compl</u>	<u>Total Cost</u>	(U) Missile Procurement, Budget Activity 5, Space and Other Support, Line Item P-27	81,405	28,641	30,765	22,976	27,110	23,062	11,982	12,272	112,000	1,960,813
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)						DATE February 1999					
BUDGET ACTIVITY 7 - Operational System Development				PE NUMBER AND TITLE 0303110F Def Satellite Comm Sys (Space)		PROJECT 2638					
(U) A. <u>Project Cost Breakdown (\$ in Thousands)</u>											
	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>							
(U) System Program Office Operations	1,098	2,319	2,116	2,100							
(U) Basic DSCS Program	1,400	1,965	540	2,156							
(U) EELV Integration	150	9,032	6,329	1,000							
(U) GT Simulator	0	0	0	3,337							
(U) SLEP Modifications	5,838	100	0	0							
(U) Identified as a source for SBIR	0	587	0	0							
(U) Total	8,486	14,003	8,985	8,593							
(U) B. <u>Budget Acquisition History and Planning Information (\$ in Thousands)</u>											
Performing Organizations:											
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to FY 1998	Budget FY 1998	Budget FY 1999	Budget FY 2000	Budget FY 2001	Budget to Complete	Total Program
Identified as a source for SBIR						587					587
<u>Product Development Organizations</u>											
Lockheed Martin	CPAF/AF	Oct 84/Mar 96	437,500	437,500	427,571	5,838	100	0	0	0	433,509
Miscellaneous	CPAF	Various	N/A	N/A	132,623	150	9,032	6,329	4,337	0	152,471
<u>Support and Management Organizations</u>											
Aerospace Corp	PO	Various	N/A	N/A	12,900	0	0	0	0	0	12,900
Miscellaneous	Various	Various	N/A	N/A	12,904	2,498	4,284	2,656	4,256	19,713	46,481
<u>Test and Evaluation Organizations</u>											
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Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to FY 1998	Budget FY 1998	Budget FY 1999	Budget FY 2000	Budget FY 2001	Budget to Complete	Total Program
None											
(U) B. Budget Acquisition History and Planning Information Continued (\$ in Thousands)											
Government Furnished Property: None											
Item Description	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Delivery Date		Total Prior to FY 1998	Budget FY 1998	Budget FY 1999	FY 2000	FY 2001	Budget to Complete	Total Program
<u>Product Development Property</u>											
N/A											
<u>Support and Management Property</u>											
N/A											
<u>Test and Evaluation Property</u>											
N/A											
Identified as a source for SBIR							587				587
Subtotal Product Development					560,194	5,988	9,132	6,329	4,337	0	585,980
Subtotal Support and Management					25,804	2,498	4,284	2,656	4,256	19,713	59,381
Subtotal Test and Evaluation											
Total Project					585,998	8,486	14,003	8,985	8,593	19,713	645,948
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